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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,583	09/29/2005	Takeshi Ishida	19291-004US1 C-678US	2893
26211	7590	09/18/2008		
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER DIVERSE, PIERRE P	
			ART UNIT 2624	PAPER NUMBER
			NOTIFICATION DATE 09/18/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,583	<b>Applicant(s)</b> ISHIDA ET AL.	
	<b>Examiner</b> PIERRE DIVERSE	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/01/2007, 12/21/2006, 09/29/2005</u> .                      | 6) <input type="checkbox"/> Other: _____                          |



### **DETAILED ACTION**

1. Claims 1 – 10 are pending in this application.

#### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in JP 2003-094763.

#### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 09/29/2005, 12/21/2006 and 02/01/2007 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 -10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshihara U.S. Patent No. 5,301,786 published on Apr 12, 1994 in view of Denber U.S. Patent No. 5,214,470 published on May 25, 1993.

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6. Regarding claim 1, Yoshihara discloses 'a sheet paper identification device that images an image of a sheet paper by means of an image pickup section and identifies the sheet paper on the basis of the image thus imaged' (see abstract). Yoshihara specifically suggests an apparatus for validating paper like pieces.

Yoshihara discloses 'sheet paper identification means for identifying the sheet paper (see column 4, 26 - 31; Yoshihara specifically suggests a determination section that determines if the paper like piece is true or false) on the basis of the second picked-up image acquired by the second image acquisition means and the unwanted image discriminated by the unwanted image discrimination means' (see column 4, lines 20 – 26). Yoshihara specifically suggests that the detection signal (second picked up image) is validated to a ratio or deviation from the reference level data (unwanted image discriminated).

Although Yoshihara teaches acquiring an image where there is no sheet paper (see column 7, lines 50 – 55). Yoshihara does not specifically disclose a 'first image acquisition means for acquiring a first picked-up image in a state where there is no sheet paper in the image pickup section' However, within the same field of endeavor, Denber does disclose 'first image acquisition means for acquiring a first picked-up image in a state where there is no sheet paper in the image pickup section' (see column 1, lines 32 – 35 and column 1, lines 52 - 54). Denber specifically suggests first scanning the platen without a document; the platen corresponds to the image pickup section;

Denber further discloses 'second image acquisition means for acquiring a second picked-up image in a state where there is sheet paper in the image pickup section' (see column 1, lines 61 – 62). Denber specifically suggests scanning the platen in the presence of a document;

Denber also discloses 'unwanted image discrimination means for discriminating an unwanted image in the second picked-up image on the basis of the first picked-up image acquired by the first image acquisition means and the second picked-up image acquired by the second image acquisition means' (column 1, lines 51 – 68; column 2, lines 1 - 11). Denber specifically suggests processing the platen scan (first picked up image) to create a bitmap with black pixels representing the dirt or etch area (unwanted image) and processing the document image (second image) to determine the location of the dirt or etch area (unwanted image) within the document.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the teaching of Denber with those of Yoshihara, because both Denber and Yoshihara are within the same field of endeavor, document scanning (see Denber abstract and Yoshihara abstract). Further, it would have been obvious to combine the teachings of Denber with those of Yoshihara because it would allow users of Yoshihara's invention to not only take into account parts and assembling errors of the optical sensor (see Yoshihara column 3, lines 54 - 68) but to also identify spots or etched areas on the document platen (see Denber column 1, lines 8 - 13).

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7. Regarding claim 2, Denber discloses 'irradiation means for irradiating the sheet paper' (see column 2, lines 39 – 40; column 2, lines 45 -46). Denber specifically suggests an illuminating lamp and that the document is scan-illuminated; the illuminating lamp corresponds to an irradiation means;

'a feed path for feeding the sheet paper' (see column 3, lines 26 – 28). Denber specifically suggests that the document is placed either manually or by a document handler; the document handler corresponds to the feed path for the sheet of paper to be fed for scanning; and

'image pickup means for imaging transmitted light of the sheet paper on the feed path' (see column 2, line 53 – 60). Denber specifically suggests a solid state photosensor array to sense the image and generate a video image signal.

8. Regarding claim 3, Denber discloses 'measurement means for measuring the position and area of an image in the first picked-up image acquired by the first image acquisition means' (see column 1, lines 51 – 56; column 3, lines 8 – 11). Denber specifically suggests recognizing and identifying the position of the bitmap that represents the spot on the image of the platen, in recognizing and identifying the position of the spot its position and area are measured, and

'discriminates an image that exists in the second picked-up image acquired by the second image acquisition means in the same position and over the same area as the image measured by the measurement means as an unwanted image' (see column 1, lines 51 – 56; column 3, lines 8 – 13). Denber specifically suggests recognizing and

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identifying the position of the spot and erasing it from the second image; in order to erase the spot from the second image it must discriminate that it exists in the second image.

9. Regarding claim 4, Yoshihara discloses 'wherein the sheet paper identification means attaches the unwanted image discriminated by the unwanted image discrimination means to standard data found beforehand from genuine sheet paper in the same position and over the same area' (see column 10, lines 7 - 10). Yoshihara specifically suggests combining the standard pattern data (standard data) with reference level data (the unwanted image) and stored in RAM, and

'identifies the sheet paper by comparing the standard data to which the unwanted image is attached with image data corresponding to the second picked-up image acquired by the second image acquisition means' (see column 10, lines 47 - 56). Yoshihara specifically suggests that the normalized standard data (standard data to which the unwanted image is attached) is collated with the data to be examined (second picked-up image) to determine whether the deposited bill is true or false.

10. Regarding claim 5, Denber discloses 'abnormal state communication means for communicating an abnormal state when the unwanted image discriminated by the unwanted image discrimination means exceeds a predetermined value that is preset' (see column 4, lines 58 - 68). Denber specifically suggest that the image processor can be programmed to look for a specific noise pattern (a predetermined value that is



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preset) and that a signal can be sent to a remote system. Denber additionally suggests that signals can be generated upon identifying dirt spots to alert an operator to clean the platen.

11. Method claims 6 – 10 are drawn to the method of using the corresponding apparatus claimed in claims 1 - 5. Therefore method claims 6 – 10 correspond to apparatus claims 1 - 5 and are rejected for the same reasons as used above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PIERRE DIVERSE whose telephone number is (571)270-3911. The examiner can normally be reached on Monday to Thursday 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pierre Diversé/  
Examiner, Art Unit 2624

/P. D./

/Brian Q Le/

Primary Examiner, Art Unit 2624

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